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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/517,977	03/03/2000	Dean Boyd	20113.0001U2	5716

24633 7590 12/01/2005

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EXAMINER	
BROOKS, MATTHEW L	
ART UNIT	**PAPER NUMBER**
3629	

DATE MAILED: 12/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/517,977	BOYD ET AL.	
	Examiner	Art Unit	
	Matthew L. Brooks	3629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 June 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *38-50* is/are pending in the application.

4a) Of the above claim(s) *1-37* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *38-50* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 January 2004 and 03 March 2000* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date [redacted].
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, A-C must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A. Pricing, costing, and how to determine equivalent net competitor price, are not shown in the drawings but are found within limitations of the item from claims 38 and 43.

B. How one uses or calculates predictors of price.

C. The "overriding" step in Claim 50 is not found with in the drawings.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to because in general the **Figures 1-5** have no lead lines explaining what is going on in correlation to the specification. For instance Fig. 2A Applicant should label what the CE per Track ($) represents. The same applies to all of the drawings.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The claims are objected to because they fail to include reference characters which label the Figs and are not enclosed within parentheses See for Example Specification pages 20-25.

Reference characters corresponding to elements recited in the detailed description of the drawings and used in conjunction with the recitation of the same element or group of elements in the claims should be enclosed within parentheses so as to avoid confusion with other numbers or characters which may appear in the claims. See MPEP § 608.01(m).

Claim Objections

4. **Claims 38-50** are objected to because of the following informalities: the preamble of the two independent claims 38 and 43 is confusing. Applicant needs to distinctly claim either a method or system. Support for this is also found with in Claims 49 and 50 wherein Applicant claims "steps" in an apparatus claim. However for purposes of examination both have been considered. Appropriate correction is required.

5. **Claim 40** fails to depend from anywhere and thus is not considered as part of this examination.

Claim Rejections - 35 USC § 112 1st

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. **Claims 38-50** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Problems with the specification and claims that lead to the 112 1st problems are listed below:

A. Parameter, page 11 of specification, "...various switches and values indicating preferred algorithms..." For Examiner to determine what the various switches are and the preferred algorithms would require undue experimentation.

B. Predictor, page 11: "...are measurements or indicator variables used to estimate the win probability..." This is never shown and what variables to use and figure this out would require undue experimentation. Even pg 19 "Predictors" there is no concrete definition of how a predictor is determined, and no relation can be seen to fig 1. Also on page 25 Applicant notes that these can be viewed as customers' brand preferences, but does not enable how to determine a value to be assigned to a "customer brand preference". Page 26 even labels it as "willingness to pay".

C. Win Probability, page 13: "Estimated probability of winning a bid at a given net price. This is truly vaugue and indefinite and cannot be determined. Examiner turns to page 24 of the specification and notes that the "winning probability" requires the

same subjective analysis of risk that was already known in the art, and is at a minimum equivalent to being a matter of choice.

Claim Rejections - 35 USC § 112 2nd

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. **Claims 38-50** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

10. With respect to **Claim 1**:

A. Applicant states in step d, "...calculates winning probabilities for each of the prices..."; when applicant more than likely means "bids"

B. Applicant also has a lack of antecedent basis problem with step e, wherein Applicant states ..."processing of said optimal bids..." yet no optimal bids have yet been determined.

C. Examiner cannot determine how from Claim 1 step e, an "expected contribution comprises a product of a marginal contribution for the selected bid and the winning probability for the selected bid. How the two interrelate or what is done to determine the product, is not clear.

D. Applicant is requested to clear up any problems that also arise in System Claim 43.

11. With respect to **Claims 41 and 50:**

Applicant states

"...*comparing* the equivalent competitor net price to the *target price range*, and *if* the an equivalent *competitor net price falls outside the target price range*, overriding the equivalent competitor net price with a predefined price *within said target range prices*."

This makes no sense the way it is worded if the competitors' price falls outside the range then override with a new number with in the range. That cant be done. For purposes of Examination Examiner interprets this to mean that if the competitor's price is below the target range a person may decide to go outside their target range in order to beat a competitors' price.

12. With respect to **Claim 42 and 47**:

The wording of the claims do not make much sense and are indefinite. Examiner is uncertain how for instance: "...determining an equivalent net price each comprises an iterative linear interpolation of the stored data." The Applicant should claim that the data is plotted on the graph or what ever they intend. These numbers only need exist (which they already do) putting the numbers in any type of graph and any type of mathematical graph that could be made from the numbers is inherent with the numbers merely being in existence, Applicant does not change nor modify the numbers. This is merely within the numbers waiting to be discovered/plotted.

13. With respect to **Claim 43**:

Both processing steps d and e do not say anything; "...calculate a probability as a function of price using parameters from e-stored model..." for instance, Applicant does not apprise one of the function and or parameters used and how they would affect the function.

14. With respect to **Claim 46**:

"...*evaluating price independent predictors* for at least a customer, a order, and a product."

Examiner cannot determine who evaluates and or how this is done. Furthermore how it is done for that of a customer, order, and/or product.

15. With respect to **Claims 49 and 50**:

See claim objections above wherein Applicant in the preamble claims an apparatus then claims steps.

16. With respect to **Claim 40** (considered in this action) and **49**: both fail to limit the claim further.

Claim Rejections - 35 USC § 101

17. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 38-50 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The basis of this rejection is set forth in the test of:

(1) whether the invention produces a useful, concrete, and tangible result.

The present invention fails the "**useful, concrete, tangible**" result test.

For an invention to be "**useful**" it must satisfy the utility requirement of section 101. The PTO's official interpretation of the utility requirement provides that the utility of an invention has to be (i) specific, (ii) substantial and (iii) **credible**. MPEP 2107. In addition, when the examiner has reason to believe that the claim is not for a practical application that produces a useful result, the claim should be rejected, thus requiring the applicant to distinguish the claim from the three exceptions to patentable subject matter by specifically reciting in the claim the practical application. In such cases, statements in the specification describing a practical application may not be sufficient to satisfy the requirements for section 101 with respect to the claimed invention. Likewise, **a claim that can be read so broadly as to include statutory and nonstatutory subject matter must be amended to limit the claim to a practical application**. In other words, if the specification discloses a practical application of an abstract idea, but the claim is broader than the disclosure such that it recites an abstraction, then the claim must be rejected. The present invention fails the utility requirement in that it is not credible.

The Examiner herein now lays out examples of why the application lacks credibility starting first with the calculation of the "winning probability". This is hardly credible in that it leaves out so many unquantifiable factors as to be relied upon.

Another consideration is whether the invention produces a "**concrete**" result. Usually, this question arises when a result cannot be assured. In other words, the

process must have a result that can be substantially repeatable or the process must substantially produce the same result again. In re Swartz, 232 F.3d 862, 864 (Fed. Cir. 2000) (where asserted result produced by the claimed invention is "irreproducible" claim should be rejected under section 101). The opposite of "concrete" is unrepeatable or **unpredictable**. Resolving this question is dependent on the level of skill in the art. For example, if the claimed invention is for a process which requires a particular skill, to determine whether that process is substantially repeatable will necessarily require a determination of the level of skill of the ordinary artisan in that field. An appropriate rejection under 35 U.S.C. § 101 should be accompanied by a lack of enablement rejection under 35 U.S.C. § 112, paragraph 1, because the invention cannot operate as intended without undue experimentation. *See infra.*

After the examiner identifies and explains in the record the basis for why a claim is for an abstract idea with no practical application, then the burden shifts to the applicant to either amend the claim or make a showing of why the claim is eligible for patent protection. See, e.g., Brana, 51 F.3d at 1566, 34 USPQ2d at 1441; see generally MPEP 2107 (Utility Guidelines). In addition, if an application is rejected under section 101 because there is reason to doubt the asserted utility, then the examiner should also reject the claims for lack of enablement, because a person skilled in the art cannot practice the invention. In re Swartz, 232 F.3d 862, 863 (Fed. Cir. 2000).

In the present case Applicant's invention is unpredictable. No body can truly predict what will happen in an actual bidding war. Examples of lacking concreteness and credibility are found throughout the specification Ie:

1. pg 6 "...number of factors *appear* to influence..."
2. pg 11 "parameter" → various switches
3. pg 11 "predictor" → "based on either the bid or"
4. pg 19 what the MRM is and how it performs its 3 functions is not clear
5. pg 25 Customer's brand preferences → how does one figure out and assign value
6. pg 26 "willingness to pay"
7. An example is needed pg 36 of how to figure out "expected contribution"
8. As to "strategic objectives" → in regards to the *win rates* and *minimum profit margins*; there is no demonstration as to who figures this out and or how to do it.

Claim Rejections - 35 USC § 102

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

18. Claims 38-50 are rejected under 35 U.S.C. 102(a) as being clearly taught by "The Official ebay Guide to buying, selling and collecting just about anything"; By Laura Fisher Kaiser & Michael Kaiser; Copyright 1999 (relevant portions attached). Herein referred to as "Buying and Selling Anything".

19. With respect to **claim 38** which reads as:

A computer-readable medium comprising computer executable instructions for executing a method for determining a target price for an auction item, the method comprising the steps of:

a. pricing the auction item using list price data in an electronically stored product model;

b. costing the auction item using cost data in the product model;

c. determining an equivalent competitor net price for the auction item using an electronically stored competitor net price model;

d. processing of said auction item pricing, said auction item costing, and said equivalent competitor net price to calculate a plurality of bids as a function of prices using the parameters from an electronically stored market response model that calculates winning probabilities for each of the prices; and

e. processing of said optimal bids to calculate a target price for the auction item, wherein the processing of said optimal bids comprises accessing an electronically stored optimization model that calculates a separate expected contribution value for each of the bids and

f. selecting an optimal bid associated with a maximum expected contribution, wherein the expected contribution for a selected bid comprises a product of a marginal contribution for the selected bid and the winning probability for the selected bid, wherein the marginal contribution comprises revenues from winning the auction item at the selected bid minus immediately incurred costs from winning the auction item at the selected bid.

Examiner in applying the broadest reasonable interpretation reads the claims as follows:

A method for determining the target price that one would be satisfied with in either paying for or selling an auction item comprising the steps of:

a. determining what would a seller sell for, (Buying and Selling Anything, page 103, A)

b. seller determines an amount that is the lowest amount that would be accepted for the sale, (Buying and Selling Anything, page 103, A)

c. seller then looks at an e-stored version of what the competitor is selling it for, (Buying and Selling Anything, pg 104 and pg 190 B-C)

d. then considering the above determines a range of prices that seller would be happy to sell for (a price that will be less than that of the competitor but still yield a profit), one consideration is market trends, and calculate odds of selling at the price. (Buying and Selling Anything, PG 103 and 106, A and 107 and page 190)

e. calculate how much you would make at each bid price, (page 104, F and 106, A)

f. and selecting the price that will lead to the most profit, your profit being what you sold item for minus what it cost. (This is inherent with in the reference)

20. With respect to **Claim 39 and 44**: Buying and Selling Anything shows the step of calculating the probability of winning auction item at a select price using an expediential distribution comprising

1. price-independent terms reflecting a relative brand preference for the auction item and (page 61, A "worth it to you" equivalent to brand preferences, Page 103)

2. price-dependent terms reflecting price sensitivity (pg 104, "nicer and more likely to sell".

21. **Claim 40** (new): The computer-readable medium of claim, wherein the method further comprises the step of the calculating a target price range for the auction item. NOT CONSIDERED

22. **Claim 41 and 50** (new): The computer-readable medium of claim 40 wherein the step of

processing of said auction item pricing, said auction item costing, and said equivalent competitor net price to calculate a plurality of bids further comprises:

comparing the equivalent competitor net price to the target price range (pg 104 A) and,

if the an equivalent competitor net price falls outside the target price range, overriding the equivalent competitor net price with a predefined price within said target range prices (Note as said before this is indefinite, however as best understood is inherent with in the reference, because after a seller has taken the proposed steps of determining their favorable prices if upon looking at competitors prices and past sale, the seller if still desires to sell will lower price below originally derived range or more if buying, see entire document and pg 61 A).

23. With respect to **Claim 42**: Buying and Selling Anything discloses

wherein the product and competitor price models are n-dimensional with stored data reflective of at least price and cost, and wherein the pricing the auction item, the costing the auction item, and the determining an equivalent competitor net price each comprises an iterative linear interpolation of the stored data (Applicant states that these three things comprise and iterative linear interpolation and Examiner agrees they always have comprised that, Applicant is merely attempting to diagram. However because never affirmatively diagramed and Buying and Selling Anything meets all of the limitations, inherently its steps and numbers must also comprise linear interpolation.)

24. With respect to **Claim 49**: Buying and Selling Anything discloses

wherein the method further comprises the step of the calculating a target price range for the auction item (pg 61; 103; 104, D-G; 106, A; 107, C).

25. All of Claims 43-50 are rejected for virtually the same reasons as expressed above.

45, 46, 48

Claim Rejections - 35 USC § 103

26. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

27. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

The scope of the prior art is that of determining value, and more specifically value of a target price.

Level of skill in the pertinent art is that of a skilled contractor or economist.

The primary reference (Buying and Selling Anything) teaches all of the claimed steps except the application of mathematical formulas to the data, judgment calls, and determinations made.

Claims 45, 46, and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buying and Selling Anything as applied to claims 38 and 43 above, and further in view of "Barron's Financial and Business Guides" and definitions found within (attached) Composed of both "Dictionary of Finance and Investment Terms"; John Downes et al.; Copyright 1998 (attached) and Dictionary of Business Terms; Jack P. Friedman; Copyright 2000 (attached)

28. With respect to **Claim 45 and 46**: Buying and Selling Anything discloses

Considering historical data (pg 104, E and 190, C), and

determining the probability of winning including evaluating price-independent predictors (190, B).

Buying and Selling Anything does not disclose 1. coefficients for market response predictors based upon the history and/or 2. generating curve reflecting the bid needed as a function of net price.

Examiner turns to the definition of "regression analysis" in the "Dictionary of Finance and Investment Terms" which shows an example of an application very similar to that of Applicants, which has coefficients and produces a market response curve. It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the regression model to the steps laid out in Buying and Selling Anything because by already measuring the independent variables has historically correlated to the dependent variables would allow a bidder to predict an optimal value. Whether the variables/ price-independent predictors a customer, a order, and a product all would be obvious.

29. With respect to **Claim 48**:

Claim 48 is rejected under 35 U.S.C. 103 as being unpatentable over the Buying and Selling Anything. The reference discloses all of the steps that a buyer/bidder would need in establishing a target price including determining competitor's prices. Buying and Selling Anything does not discuss the application of a discount model as claimed.

The examiner takes Official Notice that applying a discount model is old and well established in the business of e-commerce as a convenient way for a seller to determine a competitors net price. (Evidence is found in the definition of net → "figure remaining after all relevant deductions have been made") It would have been obvious to one having ordinary skill in the art at the time of the invention to have included the step of applying all discounts offered by competitor in Buying and Selling Anything by using a standard because the skilled artisan would have recognized that this business practice streamlines the process and saves time spent by a seller/buyer in formulating a target price and is clearly applicable to the competitive sale or purchase of any type of product. These advantages are well known to those skilled in the art.

Response to Arguments

30. Applicant's arguments with respect to the previous claims 1-37 have been considered but are moot in view of the new ground(s) of rejection.

It should be noted Applicant is correct in stating "Applicant is allowed to widely define terms as desired in the specification." However, Applicant should be fully aware that the specification does not breath life into the claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew L. Brooks whose telephone number is (571) 272-8112. The examiner can normally be reached on Monday - Friday; 8 AM - 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Weiss can be reached on (571) 272-8112. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MLB
11/22/2000

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